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Expedited Partner Therapy: Advancing Health Policy in Kentucky

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EXPEDITED PARTNER THERAPY: ADVANCING HEALTH POLICY IN KENTUCKY

by

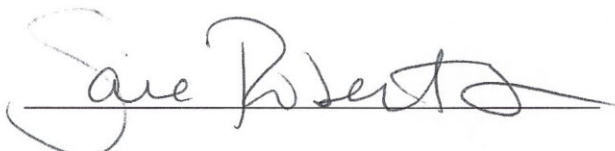
Brianna C. Tomlinson

Paper submitted in partial fulfillment of the
requirements for the degree of

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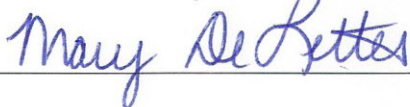
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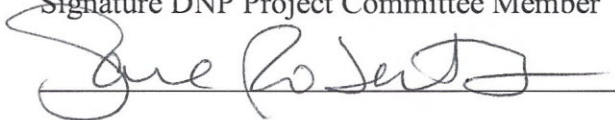
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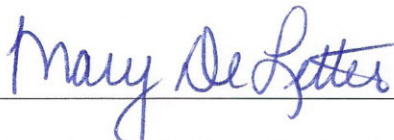
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Abstract

Innovative strategies have become necessary in the treatment of patients diagnosed with sexually transmitted infections (STIs) and their partners due to increasing rates of infection, transmission, and reinfection. Expedited Partner Therapy (EPT) is an evidence-based approach for providers to improve partner treatment and decrease reinfection rates in patients with certain STIs. However, state-based legislation governs practice implementation and EPT remains prohibited in Kentucky (KY) despite Centers for Disease Control and Prevention (CDC) endorsement. Delay in policy change presents increased risk for reinfection and continued transmission in KY. John Kingdon's Multiple Streams framework (2003) was used to analyze EPT policy in the state of KY as a foundational step toward regulation amendment. Advocacy by increasing provider, lobbyist, and legislative awareness and support was also completed. Interventions included a poster presentation, white paper formulation and distribution, and communication with key legislators. Impact was measured through survey collection assessing agreement variables among 80 KY advanced practice registered nurses (APRNs). 94% of respondents agreed that EPT is a beneficial treatment strategy and 93.7% indicated support in the advancement of EPT policy. This project provides the groundwork for future advocacy efforts for EPT legalization in KY.

Keywords: Expedited partner therapy; sexually transmitted disease; sexually transmitted infection; health policy; legislative advocacy; advanced practice registered nurse

Expedited Partner Therapy: Advancing Health Policy in Kentucky

The dramatic increase in the incidence of many sexually transmitted infections (STIs) in the past decade demands attention from healthcare practice and policy. According to the Centers for Disease Control and Prevention (CDC), *Chlamydia trachomatis* infection continues to be the most common notifiable condition in the U.S. National surveillance data reflects over 1.7 million reported cases of chlamydia in 2017, accounting for a 6.9% increase over the previous year (CDC, 2018a). This rising trend is alarmingly consistent for many STIs, including those caused by *Neisseria gonorrhoeae* and *Trichomonas vaginalis* (Ault, 2018). The state of Kentucky (KY) is not exempt from high STI transmission rates, with a reported 18,286 cases of chlamydia and 5,812 cases of gonorrhea in 2016 (CDC, 2017). While these infections affect all genders, races, and socioeconomic groups in KY, incidence is higher in females, non-Hispanic blacks, and those aged 15-24 years (CDC, 2017). Because it is suspected that many more cases go undiagnosed and unreported, current medical practice recommends antibiotic therapy for all partners sexually exposed to the infected index case, regardless of the diagnostic testing result, in an effort to prevent morbidity in the partner(s) and further transmission (Hopson & Opiola McCauley, 2017).

The related risks for long-term health complications of STI contraction are widely established, including the link to pelvic inflammatory disease (PID), chronic abdominal pain, human immunodeficiency virus (HIV), reproductive system cancers, epididymitis, and infertility. In response to this epidemic and its related health concerns, the Office of Disease Prevention and Health Promotion (ODPHP) initiative Healthy People 2020 has made STI prevention a focus in the improvement of national public health, with 18 specific goals relating to improved screening and prevention processes. This includes the need for providers to “address system-level barriers to timely treatment of partners of persons infected with [STIs], including the implementation of

expedited partner therapy for the treatment of chlamydial and gonorrheal infections” (ODPHP, 2017, para. 10). Expedited Partner Therapy (EPT) emerged in 2006 as a CDC-endorsed, evidence-based practice to increase treatment for certain STIs in an effort to reduce transmission and reinfection rates (CDC, 2006). EPT allows clinicians to provide STI-diagnosed patients with medication or a prescription to deliver to their partner(s) as treatment for exposure. This eliminates the requirement for in-person medical evaluation of the partner and expedites the treatment process. In contrast, standard practice has relied on either the patient or the provider to notify the partner(s) of their exposure to disease and initiate an office visit for treatment. This standard has been inadequate in preventing spread of infection. The CDC reports that studied health departments made attempts to contact only 12-17% of partners for patients diagnosed with chlamydia and/or gonorrhea (2006). Evidence from multiple studies has shown that EPT is an effective and beneficial strategy option for those patients with limited access to care or those who are at risk for loss to follow up (CDC, 2006).

Due to the unconventional practice of treating individuals without a physical examination, utilization of EPT is governed by individual, state-based regulations. Those states with large, urban populations became the first to adopt the practice in order to maximize treatment for exposed partners with limited access to healthcare. Since CDC endorsement, nearly all states have updated their policies to authorize provider use of EPT in the clinical setting. While it is currently legal and utilized in 48 states, EPT remains prohibited in KY (illustrated in *Figure 1*) (CDC, 2018b). Delay in policy change poses a concern for continued spread of infection in at-risk KY populations as partners of patients with diagnosed STIs remain untreated. Those with low socioeconomic status, low health literacy, and decreased access to healthcare are disproportionately at risk for complications related to STIs, making this a clear issue of health

equity (CDC, 2015). When evaluating strategies for decreasing transmission, EPT addresses these factors by increasing treatment availability, decreasing cost to both the state healthcare system and the patient, and addressing personal behavior by mitigating risk for reinfection. The lack of EPT legalization in KY state policy can be attributed to many internal and external factors. All causative elements in this setting are important to address as delay in policy change poses a concern for continued spread of infection in at-risk populations in KY as partners of patients with diagnosed STIs continue to remain untreated.

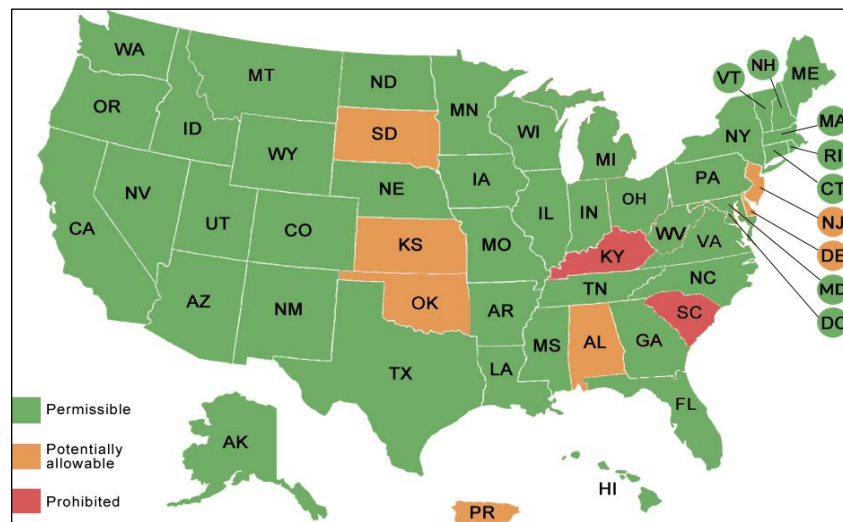


Figure 1. State-based legal status of Expedited Partner Therapy.

Purpose

In light of the above-identified findings, the purpose of this project was to analyze the current legislative environment for EPT and advocate for the advancement of EPT in KY. For EPT to be integrated as a legal practice, the current prohibitory KY state Department of Public Health (DPH) regulation “902 KAR 2:080. Sexually transmitted diseases” would need to be amended (Kentucky Legislative Research Committee, 2007). The specific aim of this project was to provide the groundwork for future advocacy efforts for EPT legalization in KY.

Literature Review

A three-purpose strategy was utilized in reviewing the current evidence supporting a policy change for EPT in KY. Evaluation included efficacy of EPT itself, as well as current provider knowledge and implementation in states where the practice is legal and utilized. Reviewed publications encompassed the original randomized controlled trials (RCTs) which evaluated EPT as an evidence-based strategy in clinical practice. An initial entry revealed a total of 308 potentially pertinent articles. Quantitative studies were preferred in literature evaluation, though several qualitative studies were included for their specific and comprehensive insight into the topic area.

After further quality assessment, which refined index terms and limited research study inclusion to those which were published and peer-reviewed, a final pool of 18 literary sources was selected for review. This pool included one systematic review, 14 quantitative and qualitative studies, one professional committee opinion report, and two national and state-level practice guidelines. The Johns Hopkins Nursing Evidence-Based Practice (JHNEBP) rating scale was utilized to evaluate the strength and quality of evidence in the literature. Evidence descends in rating (I-V) from experimental study/RCT or meta-analysis of RCT (level I), through opinions of individual experts based on non-research evidence (level V) (Dang & Dearholt, 2018). For this review, levels of evidence ranged from I to V, with the majority of studies being categorized as level II (quasi-experimental studies) and level III (nonexperimental studies). A hierarchal table of evidence of included studies was constructed to portray evidence (Appendix A).

Practice Efficacy

Official guidelines on EPT practice were released by the CDC in 2006 after results from several RCTs showed increased antibiotic delivery along with equivalent or decreased reinfection rates of chlamydia and gonorrhea for patients and their partners (Schillinger et al.,

2003). In a study by Golden et al. (2005), 2,751 subjects diagnosed with chlamydia and/or gonorrhea were randomly allocated into EPT (N = 931) or standard partner management (N = 929) to determine impact on recurrent infection. A lower rate of recurrence was found in the EPT group for both chlamydia (OR 0.82, 95% CI 0.62-1.07, $p = 0.17$) and gonorrhea (OR 0.32, 95% CI 0.13-0.77, $p < 0.01$). In a systematic review by Trelle, Shang, Nartey, Cassell, and Low (2007), the efficacy of partner notification was evaluated. EPT (defined as Patient-Delivered Partner Therapy [PDPT] in this study) was appraised as a method of improvement in patient referral and reinfection rates. Five of the six trials reflected a reduced risk of persistent or recurrent infection in patients with chlamydia or gonorrhea in the PDPT intervention group (summary risk ratio 0.73, 95% confidence interval 0.57 to 0.93) (Trelle et al., 2007). RCTs which evaluated EPT had strength in large sample sizes and achieved statistical power. Presence of infection was assessed using valid laboratory urine and swab culture testing which have high reliability rates (Trelle et al., 2007). However, loss to follow up may have affected internal reliability and EPT adherence measures were subject to patient report.

Provider Knowledge

Corresponding themes emerged from reviewing literature pertaining to provider knowledge, attitudes, and implementation in practice. Provider knowledge impacts implementation of EPT as a treatment strategy. Several different medical specialties were evaluated, including family practice, gynecology, pediatrics, medical directors, and pharmacy. Methods for assessing knowledge were generally survey or interview-based, cross-sectional designs which used random or purposeful sampling techniques (Rosenfeld et al., 2015; Lee et al., 2014). In one review, only 20% of surveyed providers (n = 195) reported a history of using EPT, and the majority of this sample group were unaware of or misguided on the legal status of the

practice in their state (Lee et al., 2014). Even in samples reporting familiarity with the therapy, providers often mislabeled or misinterpreted the definition of EPT along with its scope and uses (Hsui, Hillard, Yen, & Golden, 2012; Introcaso et al., 2013; Lee et al., 2014). Studies showed EPT was not a strategy discussed routinely in formal didactic courses, which may partially account for the lack of knowledge surrounding the practice. Providers reported the majority of knowledge on this topic was gained from continuing education, conferences, or direct patient care with faculty preceptor (Hsui et al., 2012; Rosenfeld et al., 2015). When knowledgeable on the practice, the majority of providers participating in EPT report favorability towards the treatment strategy and agree the therapy has extended public health benefits (Hsui et al., 2012; Golden et al., 2015).

Policy in Implementation

Policy was a central theme in the assessment of EPT practice, and all studies found a general lack of provider and administrator fluency in both state and facility-based policies regarding the use of EPT (Hsui et al. 2012; Introcaso et al., 2013; Rosenfeld et al., 2015). Lack of regulations endorsing EPT as a treatment practice is the most commonly cited barrier in the literature (Hodge, Pulver, Hogben, Bhattacharya, & Brown, 2008). Alternatively, research has associated a formal written policy permitting EPT with a higher rate of provider use (Hodge et al., 2008; Hsui et al., 2012; Owusu-Edusei Jr. et al., 2017). Providers who practiced in an organization where facility protocols included EPT as a treatment option were more likely to implement the therapy in their practice (Schillinger, Gorwitz, Rietmeijer, & Golden, 2016). These findings reflect a need for updated and explicit state health policy to support the successful implementation of EPT.

Theoretical Framework

A theoretical framework which concentrates on political ideology and policy formulation was selected to promote a legislative analysis and advocacy design. Originally introduced in Kingdon's 1984 published work *Agendas, Alternatives and Public Policies*, the Multiple Streams framework provides a means of understanding public policy and agenda setting by examination of historical processes in the United States' political system (Kingdon, 2003). The framework identifies three categories of variables which work both independently and interdependently to determine agenda setting and policy advancement. These categories (deemed "streams" by the author) are further delineated as the problem, political, and policy streams (illustrated in *Figure 2*). The confluence of these streams interacts to produce "windows of opportunity" for legislative action (Kingdon, 2003). The Multiple Streams framework was utilized in this project to conduct the following legislative analysis, which involved the evaluation of each framework variable in the context of the KY policy arena. Through analysis, it was determined that timing, value acceptability, administration changes, and lobbyist involvement may be the largest weighted factors in future EPT integration for the state of KY. Additionally, barriers to past proposal attempts were identified along with possible facilitators to future agenda advancement. This was done in order to fully assess the current climate of KY legislature and to determine a direction of action for advocacy efforts.

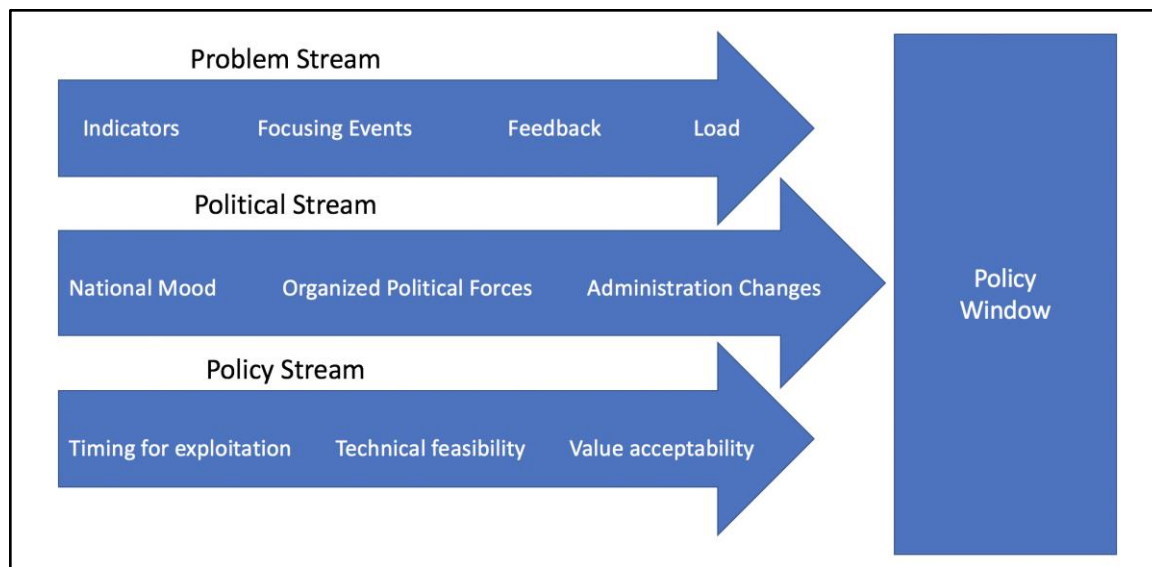


Figure 2. John Kingdon's Multiple Streams framework

Problem Stream

The problem stream contains all variables which determine how and when legislators and policy makers learn about adverse conditions and how such conditions become defined as a political problem (Kingdon, 2003). While adverse conditions are abundant in everyday life, they only become political problems when people believe they should take action to change them. Establishment of a political problem is the first step in promoting practice and policy change. This is accomplished via the analysis of four problem stream variables: indicators, focusing events, feedback, and load.

Indicators. Floating at the beginning of the problem stream are indicators, which are used to assess the magnitude and status of a condition. Large magnitude and deteriorating status of a condition helps to establish it as a political problem to both officials and the public (Kingdon, 2003). In the health policy realm, indicators include prevalence, incidence, and healthcare cost. STI prevalence and incidence have consistently increased in the U.S. over the past decade. This national incline is mirrored in the state of KY, where the incidence rate of

chlamydia has more than doubled in the last 10 years (CDC, 2017). The prevalence and transmission of STIs carry a heavy economic burden. According to a CDC-sponsored study, the total lifetime direct medical cost of the 19.7 million STI cases in 2008 was \$15.6 billion (Owusu-Edusei et al., 2013). Among non-viral STIs, *Chlamydia* was the costliest infection at \$516.7 million, followed by *Gonorrhea* at \$162.1 million (Owusu-Edusei et al., 2013). These estimates do not include indirect costs (e.g., loss of productivity) or intangible costs (e.g., pain, suffering, and infertility) associated with many STIs. These statistics serve as indicators that STIs are a major problem in the state of KY, and the increasing incidence in the last year is a marker for negative status change.

Focusing events. Disasters, crises, personal experiences, or powerful symbols are termed as focusing events along the problem stream. While indicators may establish a political problem, the data themselves are not always self-evident enough to launch an agenda campaign. Focusing events become an extra push that brings an issue to the attention of policy makers, while a lack of crisis may leave potential agenda items overlooked (Kingdon, 2003). Often times, a personal experience or story becomes the face of a policy campaign in efforts to humanize an agenda and make it memorable to legislators and the public. While indicators show that STI transmission affects many people, the general stigma and privacy associated with diagnosis becomes a barrier in finding a personal experience to represent a campaign.

Lack of a perceived disaster or crisis can also be considered a factor in the delay to EPT policy formulation in KY. However, public health crises for STI transmission are looming on the horizon for the US and KY alike. These crises are expected to develop due to increasing bacterial resistance and inadequate coverage of current antibiotic regimens. Antibiotic resistance is already a concern for gonorrheal infections, and care standards now recommend dual therapy of

ceftriaxone injection plus oral antibiotic therapy to ensure cure (CDC, 2015). According to providers at the Louisville Specialty Clinic, a branch of the Louisville Metro Department of Public Health & Wellness which focuses on STI screening and treatment, cases of resistant trichomoniasis are also emerging. These clinicians attribute increasing bacterial resistance to two factors: failure to complete antibiotic therapy and reinfection (V. Hughes, personal communication, September 27, 2018). Reinfection most commonly occurs when a treated patient continues to have sexual relations with a partner who has not received antibiotics. While the indicators clearly show a problem in STI transmission and bacterial resistance alike, no crises or “epidemics” have been publicized to create a focusing event for legislative action in KY.

Feedback. Another variable afloat in the problem stream is feedback, which refers to the way a problem or promoted policy change is brought to the attention of decisionmakers. Feedback can be formal or informal. Routine monitoring of costs through budgeting and government-sponsored program studies is considered formal feedback. In contrast, informal feedback is provided to a legislator by their constituents in the form of streams of complaints about a condition, or support or opposition of a specific bill being proposed. Chlamydia and gonorrhea cases are mandated to be reported to the state department of public health for epidemiologic and budgeting purposes (CDC, 2006). However, this formal reporting is subject to review in the public health domain and it is not regularly addressed in the legislative realm. Informal feedback in regard to STI transmission has also not been consistently presented to policy makers. While there is no available research to indicate a reasoning behind the lack of citizen feedback, one could hypothesize that this is due to the sensitive nature and social stigma that come with transmission of these infections. Additionally, patients may not be aware to lobby for additional treatment strategies unless they are educated by their providers on these practices.

Providers must be advocates for their patients in providing feedback to officials and advancing health policy.

Load. The problem load must be considered when presenting an issue to the policy agenda. Even though indicators may point to a problem, legislators may be inundated with topics to tackle in any given session. In KY, annual legislative sessions vary in length depending on the year. Even years contain a full 60 legislative days, whereas odd years are “short sessions” and only have 30 legislative days. Odd years (such as this most recent 2019 session) often experience an increased problem load due to lack of legislative time. Consequently, a specific issue may fall in priority or the topic may get left off the agenda entirely.

Lobbyists have increased campaign success if they accommodate their ideas to the current problem load. The KY Department of Public Health (DPH) released the Kentucky State Health Improvement Plan 2017-2022, which outlines what the department considers the most pressing issues for the state during the next five years. This improvement plan uses a health equity framework to highlight substance abuse disorder, smoking, obesity, adverse childhood experiences, and integration to health access. Integration to health access is defined by this team as ensuring “all Kentuckians have access to integrated medical, dental, behavioral, and social services to improve and maintain their health through the development of coordinated, multi-disciplinary systems of care” (KY DPH, 2017, p. 53). Healthcare access is specifically linked to infectious disease in the health equity framework. Using this definition, EPT aligns with KY’s current aims for health promotion by targeting exposure to infectious disease and halting the transmission process. EPT should be presented to KY legislation as a policy that aligns with the current health improvement plan for the state. Accommodating EPT into the current problem load can provide focus in legislature for this particular issue to increase priority in action.

Political Stream

The political stream is a separate entity running alongside the problem stream. It contains all variables to be considered in measuring legislative support for an agenda, which is a major factor in determining the potential success of a policy. The variables addressed in this branch include the national mood, organized political forces, and administration changes. These move from public to governmental factors, and encompass pressure group forces, electoral, and partisan influences. Public policy is intertwined with political events as shifts of key players (i.e. new legislators and cabinet, board, and team members) influence agenda setting.

National mood. While some variables in the political stream are tangible in government schematics, the national mood is a less concrete force subtly directing the policy agenda. Kingdon describes this mood as a national climate subject to broad social movements and general changes in public opinion (2003). The national mood directs what the public may or may not prioritize, be concerned about, or work to address. Themes in this variable can be apparent in media and social avenues. However, public opinion is often labile depending on the current societal events and conditions. Legislators' perception of the national climate can serve either as a propelling or constraining force in agenda topics. The lack of a public campaign for decreasing STI transmission has served as a constraining force for EPT treatment legislation. The overall mood will need to be favorable toward public health, sexual health, and EPT in order for a regulation amendment to be successful in the state.

Organized political forces. Governmental agendas can be defined as general or specialized. General agendas usually refer to those promoted by the president to pursue a broad national direction. Specialized agendas are often driven by special interest groups, including lobbyists, dedicated government departments, and boards or committees of experts. In the

political stream, mobilization of health-related agendas is often driven by specialized organized forces. These organizations must perceive a benefit for their respective platforms in order to be influential advocates. The ODPHP and KY DPH can both be considered dedicated departments to public health and disease prevention. However, the concept of jurisdiction is important to consider in targeting useful political forces for KY health policy advancement. While the ODPHP highlights EPT as a strategy in achieving “timely treatment” for partners, their national jurisdiction limits the influence in individual state legislation (2017, para. 10). The KY DPH is a driving force for health policy advancement for the state. Along with aligning agenda items with current DPH goals, as was done when considering the problem load, gaining support from individual leaders in this department may open policy advancement opportunities.

Lobbyist groups are also major influencers of the policy agenda. These groups are often formulated from professionals and experts in a field who collaborate under an organizational mantle to promote their ideas to legislators. Lobbyists play a large role in education and campaign organization, providing a united front for a body of individuals and attaching a face and name to many policy advancement propositions. The KY Board of Medicine (KBM) and KY Board of Nursing (KBN) can be considered two organized political forces that influence healthcare in KY. The Kentucky Association for Nurse Practitioners and Nurse-Midwives (KANPNM) is another prominent lobbyist group in the state’s health policy arena. The association’s mission is to “empower KY Advanced Practice Registered Nurses in providing quality, accessible and compassionate healthcare through education, leadership and advocacy” (KANPNM, 2018, para. 1). This group acts a political force in KY by advocating for policy advancements in clinical practice change, patient care, and diagnostic and prescribing rights for Advanced Practice Registered Nurses (APRNs). Dr. Beth Partin, the Legislative Committee

Chair for the KANPNM, was consulted to determine the coalition's current capacity to promote EPT regulation for the 2019 legislative session. The KANPNM spent the majority of its 2019 legislative energy on advocating increased prescriptive authority for APRNs and was unable to take on EPT as an issue during this year's session. However, Dr. Partin indicated that the addition of EPT as a KANPNM agenda item would be feasible in the future if a legislator sponsor were to be found (personal communication, August 8, 2018). As a voice in the state legislative arena, the KANPNM was a target group in this project for increasing provider and lobbyist awareness and support of EPT policy in KY.

Administration changes. The last variable in the political stream is administration changes. These changes occur due to term limits, elections, and the balance of partisan majorities. Turnover of key personnel brings agenda and goal changes according to the priorities and values of the new incumbents. Election terms apply to members of the House of Representatives and the Senate. Representatives serve two-year terms and are considered for reelection every even year. Senators hold six-year terms and elections are staggered so that only about one-third of the Senate is up for reelection during any given year. However, neither representatives nor senators are subject to term limits, meaning that each member may serve an unlimited number of terms as long as they are reelected to the position. Representatives are most directly responsible for presenting new health policy to the state house for approval and a sponsor is needed for committee formulation and bill proposal. An eventual 2/5th approval by the members of the chamber is needed for bill approval. If a bill passes one chamber it is then sent to the other for approval, and both bodies must agree on the final form for it to become a state statute or regulation.

While administration changes provoke new topics of discussion, they may make deserving items impossible to consider. In both 2014 and 2015, regulation amendment legalizing EPT was proposed to the KY House of Representatives by Representative Mary Lou Marizan. As a former registered nurse, Rep. Marzian (D) has served as an advocate for public health policy in the KY House. However, both attempts at proposing an EPT regulation did not pass to final vote. Legislature influence should be considered in this failure, as these bills were cast to a predominantly republican House with a socially conservative and fiscal agenda. As a political stream variable, administration changes play one of the largest roles in determining policy success and failure, and it is likely that partisan influences had a negative impact on the success of these bills. Today, administration party ratios remain a factor to consider in policy advancement as the current voting majority in the KY House has been retained by Republican constituents, with a 61% (R) / 39% (D) voting share. Consequently, the climate of both the state House and Senate becomes integral in the proposal and success of EPT policy.

Policy Stream

The final stream in this framework is the policy stream. Kingdon describes the policy stream as both a flow of “natural selection” and a relative “primeval soup” where ideas swirl and circulate in policy communities until action is attached to them (2003, p. 116-117). Communities in this sense describe the collection of specialists and experts in a given policy arena. Ideas in this stream follow a seemingly erratic path in their progression towards action. Some become prominent for a time and then fade as other ideas take their place. Other times, an idea will evolve as it meshes with another concept and combines in various ways. Kingdon acknowledges a generally long process of “softening up” the public and legislature before an agenda gains momentum towards policy change (2003). In this softening stage, ideas must be floated,

proposals drafted, and then amendments made in a response to public or legislator reactions. Furthermore, in order for this “soup of ideas” to evolve into a tangible policy agenda, communities must consider three separate policy stream factors: timing for exploitation, technical feasibility, and value acceptability.

Timing for exploitation. As ideas stir in the policy stream, timing becomes an integral factor attributing to a proposal’s success or failure. As previously discussed, factors in both the problem stream and the political stream influence the way issues are perceived and prioritized in the policy agenda. While problems may exist in a community, timing affects the order in which they are addressed. Often, lobbyists and policy makers must play a waiting game for an opening in the political realm where they can insert their proposal. Optimal policy timing balances a trade-off between delaying reforms and implementing immediate action plans. Using this cost-benefit approach, policy makers weigh the potential social or health burden of delaying policy versus the risk of failure which can occur with immediate action but poor political timing.

Benefits to delaying agendas include additional time to collect better data, as well as the possibility of capturing a more receptive audience due to national climate changes. Though a policy may be structurally sound, if the timing does not allow adequate attention and support to be garnered, it will fail to pass through legislation. Kingdon addresses the importance of preparation in the policy stream, emphasizing that a “proposal must be worked out beforehand, and must surface and be pushed when the window is open” (2003, p. 172). Timing for exploitation can be seen as barrier for past EPT implementation attempts. However, having prior preparation for EPT legislation in KY is a facilitator for future policy development. The KY House of Representatives will begin a new session in January of 2020. As new committees and

agendas emerge in this session, opportune timing will be necessary to bring EPT back to the forefront of legislation.

Technical feasibility. The second variable along the policy stream addresses technical feasibility of reform, including policy formulation, campaign efforts, and clinical implementation. The problem load for both legislation and lobbyist forces becomes an interdependent factor in assessing technical feasibility. Lobbyists achieve more success when focusing on one or two issues at a time depending on the workload necessary to drive political change. This workload differs depending on whether a specific agenda requires a statute or a regulation change. Both statutes and regulations have the force of law. The term “statute” refers to a law enacted by a legislative body of a government, whether at the federal or state level. Statutes are generally broad in their scope and provide a framework for more specific regulations. Regulations are created by governmental agencies, often to actually implement a given statute. Most regulations are developed through a process which includes public input, allowing citizens to influence and shape their laws directly. In general, regulations are easier to amend than statutes because they often require a simple amendment to update practice instead of a statutory repeal (Mason, Gardner, Outlaw, & Grady, 2016). In the case of EPT, the prohibitory law in KY is a DPH regulation, which should facilitate an easier process of amendment.

Clinical implementation is also a consideration as EPT is brought to the agenda. Policy makers want to ensure that a program will work in application before it is approved. Implementation of EPT in the clinical setting has been researched in states where the practice is utilized. While prohibitory legal status has been noted as a barrier, studies have correlated formal written policy permitting EPT as an effective implementation strategy associated with a higher rate of provider use (Hodge et al., 2008; Schillinger et al., 2016). Additionally, EPT has been

linked to lower societal and health care costs as compared to the standard treatment of patient or provider-based referral (Gift et al., 2011; Hopson & Opiola McCauley, 2017). These findings indicate the therapy as a clinically feasible and cost-effective option for provider use.

Technical feasibility has also been demonstrated by the number of states which have adopted EPT policy into regulation since CDC endorsement in 2006. As of 2018, policy expressly permitting EPT use has been successfully developed and implemented in 42 states and the District of Columbia. Six other states have repealed legal barriers to implementing EPT but have not yet explicitly defined the practice in their state regulations (CDC, 2018b). To aid in the adoption EPT state health policies, Arizona State University (2011) partnered with the CDC in publishing a toolkit to educate on legislative language, liability issues, and considerations for drafting legislation and regulations. This model kit serves to enhance technical feasibility in legislative adoption of EPT policy.

Value acceptability. Value acceptability transcends standard liberal-conservative dimensions and incorporates the concepts of equity, efficacy, and moral ideology. Tailoring a proposal to meet an audience's values greatly affects the reception of the idea. While focusing on scientific data such as epidemiology and public health benefits may enhance EPT's appeal in the community of medical professionals, this strategy is less likely to leave a lasting impression on legislators and policy makers. Highlighting values of cost reduction and state health improvement may produce better results in the legislative arena. Value acceptability takes on a slightly different interpretation when considering EPT in the public eye due to the differing moral ideologies that are held surrounding sexual behavior and sexually transmitted disease. As a whole, open discussion surrounding sexual practices has remained taboo in modern society which hinders public understanding and sense of urgency in addressing the STI crisis. In

consideration of the impact value acceptability takes on policy advancement, this project aimed to increase education and facilitate frank and comprehensive dialogue about the STI crisis, sexual health, and treatment strategies to state legislators.

Policy Window

As variables in the agenda setting streams move forward toward policy formulation, a window of opportunity is opened. While the problem, political, and policy stream run separately, they intertwine and couple at critical times to provide opportunity for change. This opening allows for policy advocates to bring attention to their problem and push their ideas and solutions toward written regulation. Policy windows open only occasionally and the timeframe in which they stay open may be quite brief. Policy entrepreneurs and advocates promoting specific agendas must act rapidly before the opportunity passes by. Otherwise, they may have to wait on their solutions until the next window comes along. In some instances, the window opens in a predictable fashion, as when a meeting is scheduled for annual revision of a policy. However, the policy window is not quite as easily projected in the case of EPT. Due to this unpredictability, Kingdon writes that it is important to policy entrepreneurs to be prepared, with their problem well-documented and their proposed solution ready in waiting for the opportune window to advance their agenda (2003, p. 165). As EPT advocates await a window of opportunity for regulation amendment in KY, foundational interventions were selected to increase knowledge of EPT and support for policy and practice change in order to improve chances for future legislative success.

Setting and Organizational Assessment

With a mix of provider and lobbyist influence in the state legislative arena, the KANPNM was selected as the main audience for interventions which addressed providers. This

association is composed of approximately 2,000 KY APRNs and graduate nursing students. Additionally, ten legislators were selected as target contacts for legislature awareness interventions. Known barriers to change for both lobbyist and political audiences include heavy problem load, as many state healthcare concerns are continually being brought to the attention of policy makers and advocates. Additional known barriers to change for legislator audiences include value acceptability and perception of technical feasibility in the integration of EPT into state regulation.

Intervention

This project was composed of four grassroots EPT advocacy interventions. A logic model was formulated to demonstrate project advocacy activities and consequent goals (Appendix B). The first intervention, targeted towards providers and lobbyists, included a poster presentation titled “Expedited Partner Therapy for Treatment of STIs: Advancing Health Policy in Kentucky”. This literature review poster was presented by the project lead at the annual KANPNM conference in Lexington, KY in April 2018. The poster educated KY APRNs and association lobbyists on EPT and current legality, as well as provider use, knowledge, and facilitators for implementation in states where it is allowable (CDC, 2018c). This was done as a foundation for further advocacy efforts through the KANPNM.

The second intervention was the authoring and distribution of a white paper, which stemmed from the CDC 2015 sexually transmitted diseases treatment guidelines, and highlighted EPT efficacy, implementation, and policy advancement. The formulation of this document utilized the problem stream variables of indicators and focusing events to demonstrate the need for policy change while aiming to increase value acceptability to readers. The white paper was distributed through email to APRNs and by mail to select legislators. The third intervention was

survey administration and collection from APRNs to measure participation, EPT knowledge, and intent to support. This project was submitted to the university Institutional Review Board prior to implementation and was deemed exempt from full review as it did not meet research criteria.

The fourth intervention was legislator contact to increase EPT awareness and support. Legislator participants were selected by the project lead and recruited through mailed white paper submission along with follow-up email and phone contact attempts. Six KY House Representatives and four KY Senators were chosen due to their projected receptivity to health policy advancement as well as their region of influence. Legislators from the counties with the top three chlamydia incidence rates were selected: Union, Jefferson, and Fayette (CDC, 2017). Legislators were active members of their respective chambers to be included. Seven legislators were able to be contacted via phone call or email. These contacts indicated agreement that STI transmission is a concerning problem in KY and should be a priority topic for the state to tackle in upcoming legislative sessions. Six of the contacts stated they were unaware of EPT practice and indications prior to project education efforts, including its current illegal status in KY. All seven contacted legislators indicated that they would support EPT legislation and its integration should it be introduced as a bill in upcoming sessions.

APRN Survey Administration and Results

Participants. Participants included KANPNM members and KY legislators. For poster presentation, participants were KANPNM conference attendees. For survey collection, KANPNM members were invited to complete an anonymous survey through an email invitation with preamble consent prior to survey access. Clicking “proceed” after preamble review indicated informed consent for participation. All participants were members of the KANPNM to meet inclusion criteria. Members who were graduate students and those APRNs not currently

practicing (in education and administrative roles) also met inclusion criteria due to their stakeholder status.

Data Collection. Data was collected through responses to a secure, encrypted SurveyMonkey account. The link to this survey was administered through an approved KANPNM listserv, ensuring all participants were eligible for inclusion. Ethical considerations included value acceptability and current practice strategies among participants. Questions were structured to be inclusive and avoid ethical dilemmas, allowing participants to skip questions, answer “not applicable” in demographic variables, and “neither agree nor disagree” in agreement variables when applicable. Responses were anonymous and no identifiers were collected. Surveys were downloaded from a secure server and stored on an encrypted computer as well as a password protected USB drive.

Measurement. Project impact was assessed through KANPNM member survey responses. Demographic variables were collected, including education level, years of experience, and current practice status in KY and with patients diagnosed with STIs. Participants were also asked to answer a six question, five-point Likert scale assessment. This scale was selected due to its validity in quantifying and measuring agreement indicators. Questions measured perception of EPT knowledge, satisfaction with standard practice, EPT efficacy, and likelihood in partnering for future advocacy efforts.

Results. Results of the APRN survey were evaluated using descriptive statistics. A total of 80 (n = 80) participants responded to survey invitation. No responses were excluded. Demographic variables indicated a mix of provider experience, education, and current practice status (see Table 1). 71.25% of respondents were currently practicing in KY. Years of experience varied, with most respondents falling into either the “1-5 years” or the “15+ years” categories

(illustrated in *Figure 3*). 83.5% (n = 66) of participants held a master's or doctoral degree in nursing. 65.34% (n = 51) of participants indicated that they practiced in a setting where they encounter patients for STI diagnosis and treatment.

Q2 How many years of experience do you have as a provider?

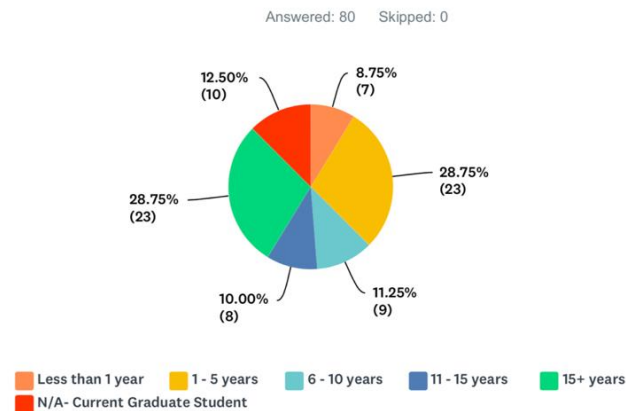


Figure 3. Respondent years of experience with corresponding distribution

One participant completed only demographic variables, and therefore Likert-scale questions were evaluated out of the 79 respondents who completed the survey (illustrated in *Figure 4*). Agreement variables were assigned the following numerical values for statistical analysis: Strongly disagree (1), Disagree (2), Neither Agree nor Disagree (3), Agree (4), and Strongly Agree (5). Both “Agree” and “Strongly Agree” were considered positive responses. Responses reflected overall satisfactory perceived knowledge, with 73.41% (range 1-5, mean: 3.65, SD: 1) of respondents indicating that they felt knowledgeable of EPT and its indications.

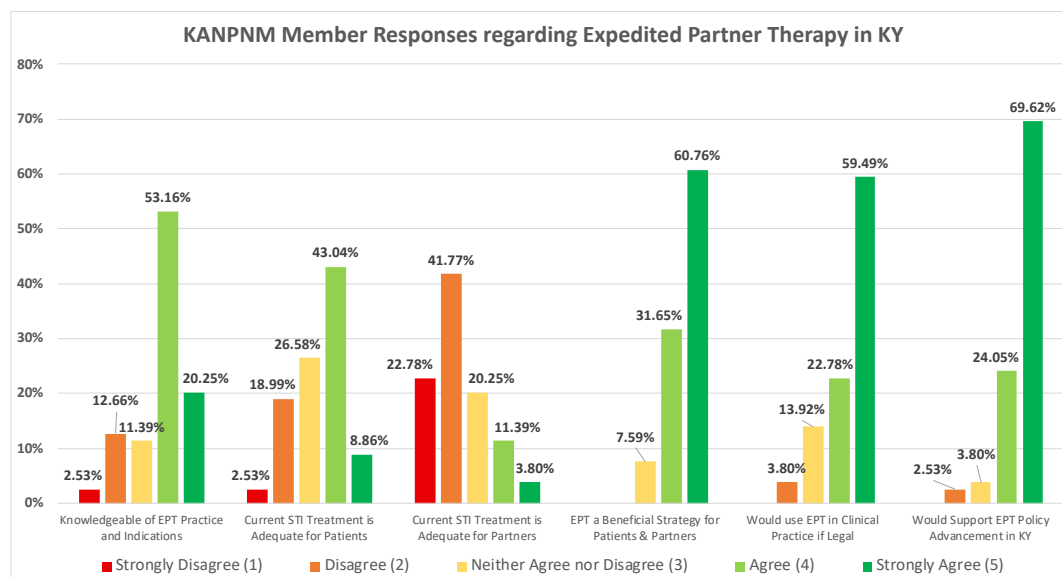


Figure 4. KANPNM member responses regarding Expedited Partner Therapy in Kentucky

Results also demonstrated provider acknowledgement of practice change need for partners of STI-diagnosed patients. While 51.9% of providers indicated agreement that current practice strategies for STI prevention and treatment were adequate for their patients, 64.55% disagreed or strongly disagreed that these same strategies were adequate for partners. The results also reflected strong positivity toward EPT and future policy advancement in KY. 92.4% (range 3-5, mean 4:53, SD: 0.63) of surveyed providers either agreed or strongly agreed that EPT is a beneficial treatment strategy for patients and partners. 82.7% (range 2-5, mean: 4.38, SD: 0.86) of surveyed providers indicated that they would utilize EPT in their clinical practice if it were legalized. Finally, 93.7% (range 2-5, mean: 4.61, SD: 0.68) of surveyed providers indicated they would support EPT policy advancement in KY.

Policy Analysis Outcomes and Discussion

Results from policy analysis and advocacy efforts were measured through qualitative evaluation of verbal feedback from providers and legislators. The poster presentation received positive responses from conference attendees in increasing APRN knowledge of EPT, legal

status in KY, and indication for state regulation amendment. Many APRNs stated that prior to project intervention, though they were aware of the high STI incidence rates in the state, they were not fully knowledgeable on EPT practice or the significant impact of state regulation on provider strategies for STI treatment. These providers indicated they would increase their advocacy for future EPT legislation due to project impact. Through follow-up contact with target legislators after white paper distribution, feedback was collected from seven representatives and senators who all reported favorability toward future EPT advancement in KY. Five legislators were unaware of the high STI incidence rates in the state, and reported they were not knowledgeable about updated CDC guidelines, EPT practice, and STI state regulation prior to education through project interventions. All contacted legislators indicated that increased knowledge of high STI incidence and transmission, as well as the impact of state regulation on STI treatment options was influential in increasing legislative support of policy amendment. All contacted representatives agreed that increased lobbyist and stakeholder advocacy is crucial for amendment success and stated they would support the future integration EPT into state health policy.

Interpretation

Policy advancement requires a balance of many variables; initial legislative analysis found that timing, value acceptability, administration changes, and lobbyist involvement may be the largest weighted factors in future EPT integration for the state of KY. Responses from legislators reflected favorability towards the future integration of EPT in KY state regulation, which is a vital component in policy change. A sponsoring legislator will need to be secured for bill proposal and future advocates may consider approaching one of the legislators who were amenable to such policy change through this project.

Survey results reflect that KY APRNs acknowledge the need for updated STI state policy and indicate support for the advancement of EPT. As stakeholder support is one of the most crucial aspects of agenda success, this project accomplished its goal in advocating for EPT by increasing provider and lobbyist support. However, APRNs are not the only stakeholders in the healthy policy realm and other specialties such as medical doctors, pharmacists, and public health workers should be consulted and targeted for advocacy interventions. Future advocates may consider advancing interventions to lobbyist groups such as the KY Board of Nursing, KY Board of Medicine, and KY Department of Public Health.

An incidental finding in this project during verbal feedback indicated that many KY providers are currently utilizing EPT in clinical practice without knowledge that it is prohibited in the state. This may be to provider migration from other regions, as EPT is taught and regularly implemented in most other states in the country. This finding indicates a need for increased education to providers on EPT practice and its current regulatory status in KY.

Limitations

Several limitations were encountered during project implementation. Survey results were limited by small sample size and low response rate. Additionally, due to project scope, participants were restricted to those in the nursing field. Increased interdisciplinary sponsorship through all healthcare roles will be necessary to dramatically improve the chance of amendment success. Generalizable assessment of legislator support was limited due to small sample size and similar partisanship of contacts. Partisan influences have limited EPT advancement in past attempts and may become apparent in the future if a bill were to be sponsored.

Progression of a bill for regulation amendment was limited during project implementation due to several factors. Firstly, the 2019 KY legislative session was “short”,

consisting of only 30 legislative days instead of a full 60 (occurring on even-numbered years). This resulted in an increased problem load for lobbyists and legislators as other pressing matters for KY state health took precedence over STI transmission. While STI incidence continues to increase in KY, the lack of a focusing event such as major STI crisis or perceived epidemic continues to be a limitation in policy advancement. Treatment failure due to uncontrolled transmission and antibiotic resistance may serve as a future focusing event to move EPT policy forward in the state. Additionally, this shorter legislative session limited long-term follow up with legislative contacts which may have facilitated agenda advancement. KANPNM lobbyist efforts for EPT were restricted due to simultaneous needs for advocacy efforts in APRN prescribing authority. An overarching limitation to all policy advancement stems from the multi-factorial political arena, where advocates must work to balance ever-changing variables in the Multiple Streams Framework in order to best predict the opening of a Policy Window.

Conclusion

EPT is an evidence-based approach which increases treatment and adherence for partners with patients diagnosed with STIs. The lack of DPH regulation amendment supporting EPT in KY limits provider options in caring for patients diagnosed with certain STIs. The practice of EPT could be a benefit to many patients in the commonwealth; especially for those patients who are high-risk and partners who may not have access to health care or choose not to pursue physical examination. Therefore, legislation in KY should be updated to include explicit health policy allowing EPT use according to CDC recommendations and provider discretion as they collaborate with their patients to formulate safe, efficacious treatment plans.

Both the healthcare and legislative arenas are complex organizations which require adaptability to ever-changing environments. In order to advocate for EPT policy advancement in

KY, a four-fold intervention was conducted. APRNs are an ideal target audience for poster and white paper interventions due to their stakeholder status in KY health policy. APRNs are trained to be leaders in their healthcare communities and are influential advocates for policy change in the political arena. APRN participants indicated increased awareness and support of EPT integration into state policy. Additionally, seven initial legislator contacts were made, and verbal feedback indicates positive receptivity towards EPT in the future. These responses indicate an achieved goal for this project's scope of influence.

State representatives and senators are most directly responsible for presenting new health policy to the respective House and Senate for approval. A sponsor will be needed for committee formulation and bill proposal. While the next legislative session will not begin until January 2020, advocates for EPT are needed to raise awareness of STI transmission and therapeutic, evidence-based practice alternatives to standard practice inadequacies. The 2020 legislative session will last a full 60 legislative days which may mean more opportunity for bill proposal and committee delegation towards regulation amendment. Enhancing stakeholder knowledge and buy-in, appealing to lobbyist groups for platform support, and engaging in personal and meaningful discussion with legislators will continue to be necessary interventions in integrating EPT and improving chance of agenda success. Advocates are encouraged to reach out to their coalition leaders and legislators to stimulate conversation on EPT and the related need for practice change as policy advocates work towards the opening of a window of opportunity for STI regulation amendment in KY.

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Appendix A

Hierarchal Table of Evidence

Citation	JHNEBP Level of Evidence	Design/ Methods	Measures/ Tools	Data Analysis	Findings	Quality of Evidence
Trelle et al., 2007	Level I	Systematic review of RCTs; intervention as supplement to standard patient referral. Data sources: 7 electronic databases searched January 1990 to December 2005 -Random effects meta-analysis: 14 trials (N = 12,389) Subjects with gonorrhea, chlamydia, urethritis, trichomoniasis, EPT specifically: 6,719 (4,912 women, 1807 men) in 6 RCTs	Use of EPT through patient delivered partner therapy antibiotic 1) reduction of incidence or prevalence of sexually transmitted infections in index patients 2) number of partners treated; number of partners tested or testing positive; and number of partners notified, located, or elicited. Measures: Reinfection rates as defined by each infection's gold standard of medical diagnosis (e.g. nucleic acid amplification in chlamydia) for high tool reliability and validity	Outcomes reported as proportions were calculated as exact 95% confidence intervals or two-sided P values. Random effects meta-analysis; heterogeneity assessed using Cochran's Q & the I2 statistic; In meta-analyses with at least 5 trials: funnel plots & statistical testing for small study effects.	1) Meta-analysis of 5 RCT linked EPT to reduced risk of persistent or recurrent infection in patients with chlamydia or gonorrhea (summary RR 0.73, 95% confidence interval 0.57 to 0.93) 2) supplementing patient referral with information for partners also effective 3) 2 RCTs found providing index patients with chlamydia with sampling kits for their partners increased # of partners who got treated 4) increase in the number of partners treated (risk ratio 1.44, 95%, CI 1.12 to 1.86), but statistical heterogeneity high (I2 94%, P < 0.0001)	Strengths: Large sample sizes; subjectivity minimized by carrying out study selection, data extraction, & quality assessment Weaknesses: All studies had methodological weaknesses that could have biased results (inadequate allocation concealment); differences in interventions and outcomes limited the use of meta-analysis to summarize results and explore heterogeneity

Golden et al., 2005	Level II	Randomized-controlled trial; (N = 931 in EPT group; control = 929)	Persistent or recurrent gonorrhea or chlamydial infection in patients 3 to 19 weeks after treatment using urine samples for Chlamydia trachomatis and, for those who originally received a diagnosis of gonorrhea, for Neisseria gonorrhoeae, using LCx ligase chain reaction (Abbott Diagnostics) or Aptima Combo 2 (Gen-Probe)	Two-tailed T test; Fischer's exact test; Bivariate/multivariate relative risks & associated confidence intervals comparing partner-notification outcomes or infection outcomes estimated with a generalized linear model with a binary outcome and log link and robust standard errors	GC/CL infection significantly less common at follow-up among patients in EPT group than in standard-referral group (RR, 0.76; 95% CI, 0.59 to 0.98). EPT of partners associated with a 73% reduction in presence of GC (3 % vs. 11%, P=0.01), but only a 15% reduction in presence of CL infection at follow-up (11% vs. 13%, P=0.17).	Strengths: Large sample size meeting power; randomization, high tool reliability and validity Weaknesses: loss to follow-up may affect internal validity
Golden et al., 2015	Level II	Stepped-wedge, community level randomized- controlled trial; four intervention waves (6-8 mo each) randomly assigned to local health jurisdictions with purpose -To assess EPT effect as well as scalability of public health EPT intervention (23 jurisdictions; N = 5,741)	Promotion of EPT uptake – EPT packets supplied to clinics, partnership with pharmacies, education to providers, referral of high-risk patients to health department for EPT; results measured through analysis intervals of nucleic acid amplification chlamydia test positivity.	-Mixed effects generalized linear model -2-tailed test -single post hoc assessment -Post-stratification weights used to adjust for nonresponse bias	1) EPT acceptance increase from 18.3% pre-intervention to 43.9% during intervention (p < 0.001) 2) 92.6% patients receiving EPT reported compliance 3) Chlamydia positivity decrease from 8.2% to 6.5% (p < 0.0001). Post hoc RR associated w/ 10% decrease in population-level infection measures.	Strengths: large sample size, adequate power; RCT design; adequate time frame for evaluation of trends Weaknesses: inability to evaluate effect of state law changes mid-study increasing funding for EPT (possible confounding factor); inability to ensure no mixing of individuals in specific LHJ sample groups.

			Reported as highly reliable though validity not discussed. Additional goals of EPT uptake measured through random sampling interview of patients regarding availability and acceptance/refusal.			
Owusu-Edusei Jr. et al., 2017	Level III	Longitudinal study; 51 state-level monthly morbidity rates (including D.C.) from national surveillance data with autoregressive time series model analysis; mixed model approach with analysis of fixed effects and random effects; (N= 26 states with EPT policies; Control = 25 states which lack EPT laws)	Monthly state-level gonorrhea morbidity rates for males and females Jan 1995-Dec 2014, no age restrictions; Autoregressive time series model, panel approach (higher variability & degrees of freedom with minimal multi-collinearity concerns); highly valid approach but reliability not discussed explicitly. National surveillance data collected from provider report.	Transformation of data to natural logs (variance stabilization); Fisher-type unit root test with Dickey-Fuller option	1) monthly variance in gonorrhea morbidity (both increasing/decreasing) existent in all states regardless of EPT laws 2) fixed effects model showing 4 states had significant instant decrease of infection after EPT law ($p < 0.01$) but 2 states had significant increase ($p < 0.01$) 3) random effects model showing no significant differences in groups	Strengths: large sample size; length of assessment adequate to monitor for trends; clear set-up for further research Weaknesses: study assessed only gonorrhea rates, limited by increasing resistance of bacteria through study period; limitation regarding surveillance data due to reliance on provider report of disease & inability to measure provider usage of EPT once legalized as well as patient adherence to treatment
Hsui et al., 2012	Level III	Cross-sectional study; anonymous online survey; 289 responses from pediatric residents in 14 California programs (78%	57-item questionnaire to assess current knowledge, clinical practices, and	X ² analyses for categorical variables, ANOVA for analysis of PGY	-21% reporting moderate or very familiar with EPT; 24% reporting having education on the practice (85% learned from direct patient care)	Strengths: Results consistent with other studies regarding perceived barriers, provider knowledge; high

		female, mean age 29.4 +/- 2.7 years), postgraduate years 1,2, and 3 included with no exclusion criteria	personal comfort using EPT. Closed response questions. Combination of forced-choice questions and 4-point Likert scales used for high tool reliability and validity	groups, Kruskal-Wallis test for ordinal variables; analysis by presences of adolescent fellowship: t-test for continuous variables and Wilcoxon rank-sum test for ordinal variables.	-inadequate understanding of EPT methods -52% reported using 1 type of EPT in practice, but 74% using EPT only “rarely” or “sometimes” -inadequate knowledge of clinical and state policy regarding EPT - perceived barriers including concern of adverse drug event, adherence, counselling, & unfamiliarity with policy	participation with good distribution of PGY groups Weaknesses: Possible recall/selection/responder biases due to survey nature of study design
Schilling et al., 2016	Level V	Systematic review of published articles, data reports, and conference abstracts providing measures of 1) provider uptake of EPT 2) patient delivery of EPT 3) partner receipt of EPT and treatment; 42 literature sources meeting inclusion criteria	Measures: “Provider uptake” defined as proportion of providers supporting EPT use in qualitative terms; “offer percentages” defined as proportion of EPT-eligible patients who are offered EPT from a practicing provider; “Patient acceptance” defined as proportion of patients accepting EPT when it is offered; “Partner receipt” defined as proportion of patients who had at	Data abstraction with representation of each study in alphabetical order in structured table format (7 tables), one for each measure and additional interventions for enhancing EPT use -Many differing statistical measures used for included studies	1) 11 articles reporting percent of providers using EPT (range 14%-73% for routine use) 2) provider offer rate low (27% to 31%) as found in 3 studies 3) 3 sources reporting patient acceptance (38% to 70%) 4) patient deliverance rate from 73%-100 from 4 literature sources	Strengths: Heterogeneous mix of study designs from RCTs to qualitative, good amount of data reviewed, description of measures discussed, conceptual framework established Weaknesses: Unpublished data used in attempt to collect most up-to-date data but weakens reliability of sources, variance of results for certain measures is high

			least 1 partner treated by EPT			
Hodge et al., 2008	Level V	<p>Qualitative descriptive study; identify legal provisions that affect a clinician's ability to provide EPT through review of 3 areas of legal relevance: 1) medical licensing and liability 2) public health and safety. 3) pharmaceutical practices</p> <p>-50 states + 2 jurisdiction</p> <p>-examined statutes, bills, administrative regulations, judicial cases related to primary objective</p>	<p>Measures: -14 defined search terms</p> <p>Laws limited to those addressing,</p> <p>1) ability of authorized HCP to provide patient's partner with STD treatment without physical exam; 2) judicial decisions regarding discipline for HCPs using EPT; 3) administrative opinions from the attorney generals, medical and pharmacy boards;</p> <p>4) legislative or prospective bills which provide insight into the legality of EPT; 5) laws that incorporate or adopt national guidelines that may support EPT; and</p> <p>6) prescription drug laws</p> <p>-No discussion of reliability/validity of tools</p>	Due to nature of study, no program statistical analysis; legal information organized by jurisdiction in a comprehensive table and map presenting summaries of relevant law and ruling concerning EPT	<p>1) 12 jurisdictions where EPT is legal, 13 in which EPT is "probably legally prohibited", and 28 where EPT is potentially allowable</p> <p>2) in those where EPT legality is uncertain, inconsistent or ambiguous laws may cause providers to hesitate use of this therapy (call for more explicit and direct legislation)</p> <p>3) CDC guidelines may effectively endorse EPT unless trumped by contrary statutory provision</p> <p>4) 88% boards perceive EPT as illegal or uncertain legality (barrier to use)</p>	<p>Strengths:</p> <p>Establishing important parties in EPT legalization, no exclusion of states, per-reviewed, wide-range of inclusive and relevant search terms</p> <p>Weakness: due to article age and topic, some results from study may be outdated, no specific theoretical framework, no discussion of reliability/validity of tools used for measures, no statistical significance discussed due to nature of study</p>

Appendix B

Logic Model for Project Implementation

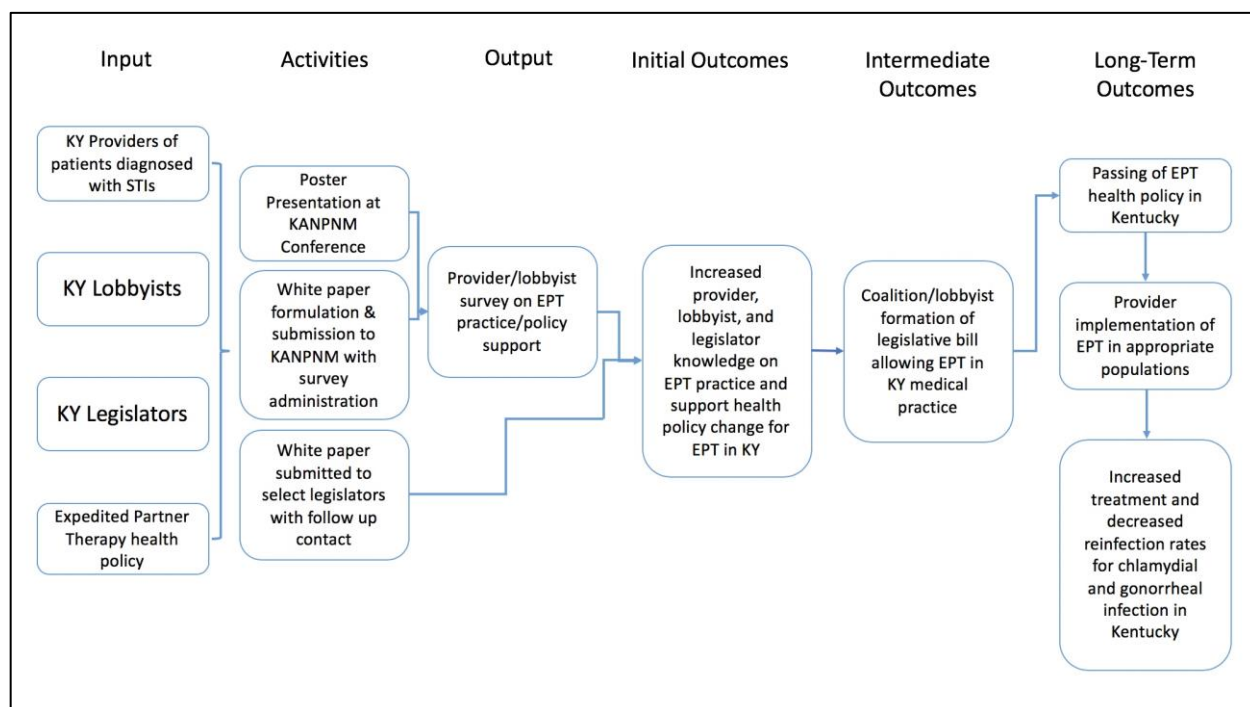


Table 1

KANPNM Member Demographics

KANPNM Member Demographics n = 80 KANPNM Members (APRNs/graduate students)	
Demographic Variable	n (%)
Currently a KY Provider?	
Yes	57 (71.25)
No	23 (28.75)
Years of Experience:	
<1 year	7 (8.75)
1-5 years	23 (28.75)
6-10 years	9 (11.25)
11-15 years	8 (10.00)
15+ years	23 (28.75)
N/A (students)	10 (12.50)
Highest Degree Held:	
BSN	13 (16.46)
MSN	45 (56.96)
DNP	18 (22.78)
PhD	3 (3.80)
Currently Treating STIs?	
Yes	53 (66.25)
No	27 (33.75)
Number of Monthly Patient Encounters for STI Screening/Treatment:	
1-5	19 (25.00)
6-10	16 (21.05)
11-15	7 (9.21)
15+	8 (10.53)
N/A	26 (34.21)

Table 2

KANPNM Member Responses regarding EPT in KY

Survey Question	Strongly		Neither		
	Disagree	Disagree	Agree nor	Agree	Strongly
	(1)	(2)	Disagree (3)	(4)	Agree (5)
	n (%)	n (%)	n (%)	n (%)	n (%)
Knowledgeable of EPT	2	10	9	42	16
Practice and Indications	(2.53%)	(12.66%)	(11.39%)	(53.16%)	(20.25%)
Current STI Treatment	2	15	21	34	7
is Adequate for Patients	(2.53%)	(18.99%)	(26.58%)	(43.04%)	(8.86%)
Current STI Treatment	18	33	16	9	3
is Adequate for Partners	(22.78%)	(41.77%)	(20.25%)	(11.39%)	(3.80%)
EPT a Beneficial					
Strategy for Patients &	0	0	6	25	48
Partners	(0.00%)	(0.00%)	(7.59%)	(31.65%)	(60.76%)
Would use EPT in					
Clinical Practice if	0	3	11	18	47
Legal	(0.00%)	(3.80%)	(13.92%)	(22.78%)	(59.49%)
Would Support EPT					
Policy Advancement in	0	2	3	19	55
KY	(0.00%)	(2.53%)	(3.80%)	(24.05%)	(69.62%)

